State of Alaska
FY2010 Governor's Operating Budget

Department of Environmental Conservation
Water Quality
Component Budget Summary

Component: Water Quality

Contribution to Department's Mission

Identify, abate, and control water pollution in a cost effective, accountable manner to protect public health and preserve the many uses of Alaska's waters.

Core Services

- Issue wastewater discharge permits to industrial facilities and municipal domestic wastewater discharges.
- Ensure compliance with wastewater discharge authorizations by evaluating self-reported monitoring results and conducting facility inspections.
- Establish and update water quality standards and criteria for the protection of Alaska waterbodies.
- Monitor and assess the condition of Alaska's waters to identify pollution caused by human activities and to determine where controls are needed.
- Prioritize and clean up polluted waters.
- Reduce non-point sources of pollution in Alaska waterbodies by identifying and implementing Best Management Practices (BMP's).
- Award and manage grants for stewardship, protection and restoration needs of waters throughout Alaska.
- Monitor cruise ship environmental and sanitation practices.
- Ensure cruise vessel compliance with wastewater discharge and air emission standards.
- Provide information about permitted discharges and commercial passenger vessel discharges.
- Conduct ambient water quality and wastewater monitoring for permitted discharges.
- Certify and provide technical assistance for domestic wastewater disposal systems.

End Result	Strategies to Achieve End Result
A: Water Quality is protected. Target #1: No polluted waters. Status #1: The total number of polluted waters has declined 13% in six years, with eight polluted waters restored in FY 2008 alone.	**A1: Protect and restore polluted waterbodies to attain their designated uses.** Target #1: 25% of polluted waterbodies have active stewardship, protection and restoration activities each year. Status #1: In FY 2008, 39% of polluted waterbodies had active stewardship, protection and restoration activities, a 9% increase from the previous year. **A2: Issue discharge permits/authorizations.** Target #1: 100% of DEC-managed dischargers have current permits/authorizations. Status #1: In FY 2008, 61% of the 209 dischargers managed by DEC had current permits/authorizations. Target #2: 100% of Army Corps of Engineers dredge and fill ("404") permits are certified by DEC. Status #2: In FY 2008, 80% of Army Corps of Engineers dredge and fill (“404”) permits were certified. **A3: Enforce compliance with permit/authorization conditions.**

	Target #1: 100% of inspected facilities have performed follow-up actions required by inspection reports. Status #1: 96% of inspected water facilities performed follow-up actions required by inspection reports in FY 2008.

Major Activities to Advance Strategies

- Implement state primacy as authority transitions from EPA to the state.
- Implement wastewater discharge permitting and compliance functions formerly conducted by EPA.
- Certify that wetlands fill projects authorized by the Corps of Engineers meet Alaska water quality standards.
- Establish best management practices to control non-point pollution and protect water quality.
- Report to the public on the health of Alaska's waters.
- Develop and implement recovery plans for all polluted waters.
- Implement pollution prevention strategies to protect waters from rapid urban development and other areas with high human use.
- Provide pass-through funding and technical assistance to municipalities, local groups, and other state agencies to address water quality issues.
- Revise water quality standards to ensure they continue to protect Alaska's water.
- Continue to improve a risk-based permitting and inspection program for wastewater discharges.
- Implement and improve an on-line permit application, tracking, and reporting system to speed up permit reviews and oversight.

FY2010 Resources Allocated to Achieve Results

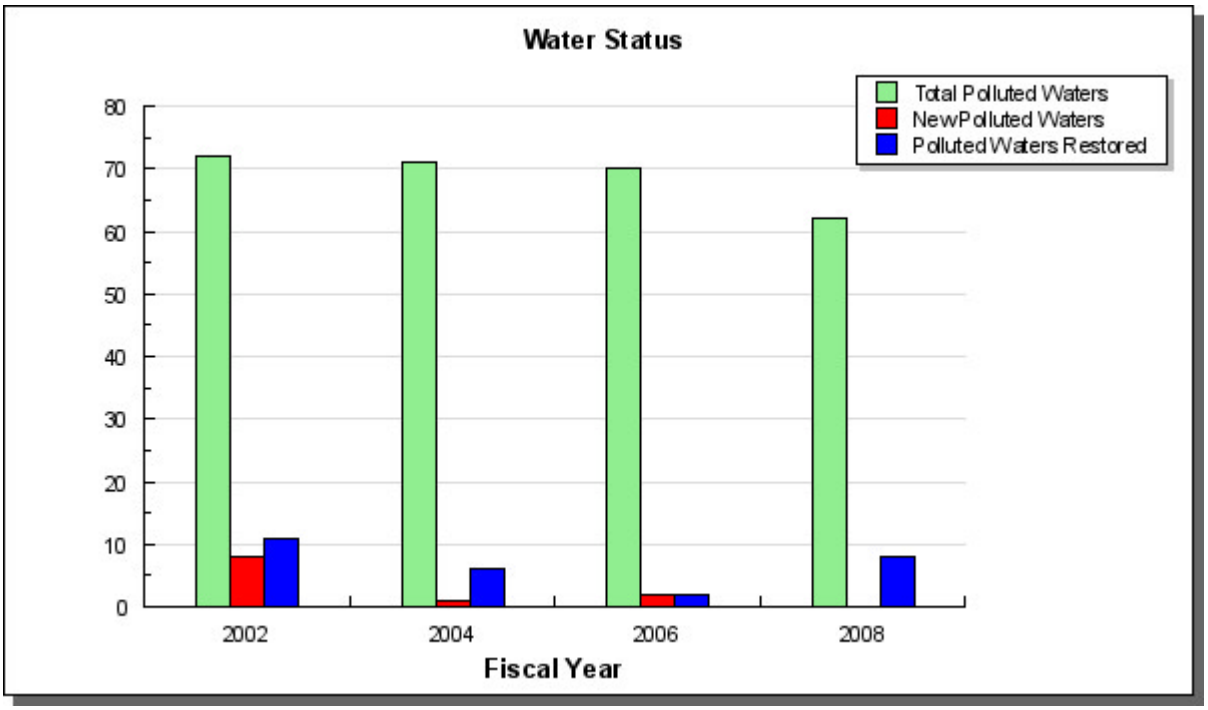
FY2010 Component Budget: $15,925,800

Personnel:	
Full time	84
Part time	0
Total	84

Performance

A: Result - Water Quality is protected.

Target #1: No polluted waters.
Status #1: The total number of polluted waters has declined 13% in six years, with eight polluted waters restored in FY 2008 alone.



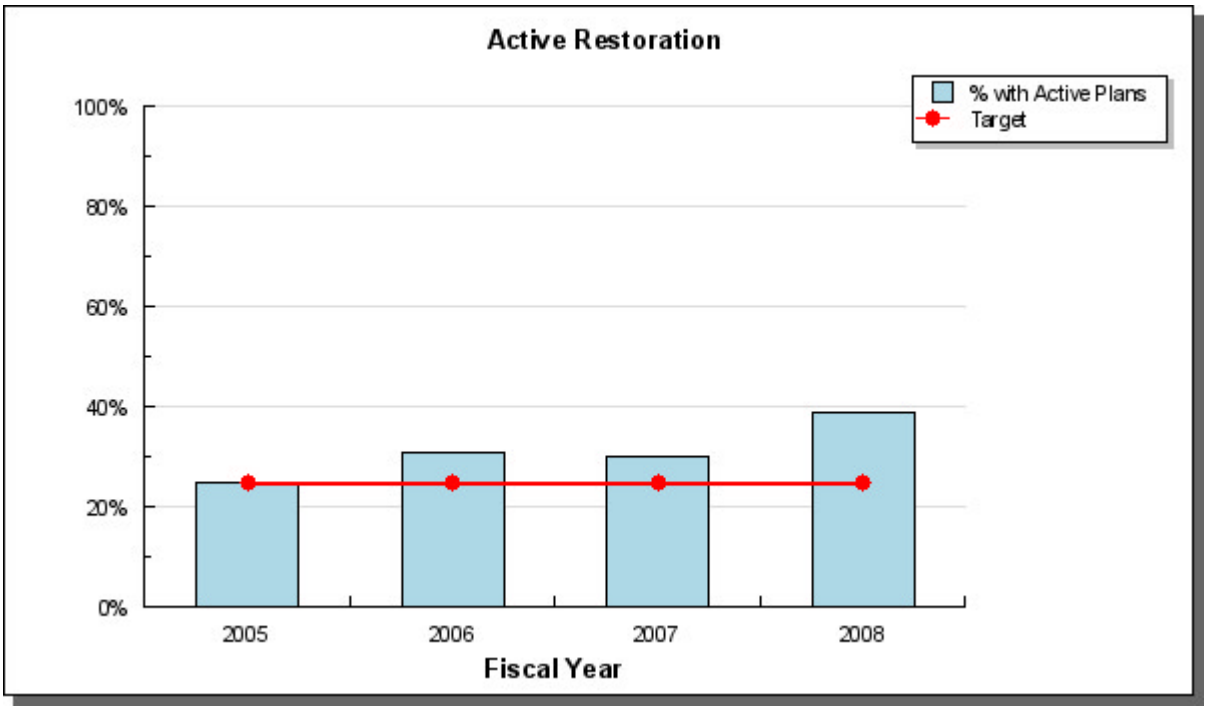
Methodology: The number of polluted waters is based on the Integrated Water Quality Monitoring and Assessment Report which Alaska is required to submit to the EPA every 2 years under Clean Water Act section 305(b). In this Report, the polluted waters are broken into two categories – impaired waters with a recovery plan (category 4) and impaired waters without a recovery plan (category 5). The list of category 5 impaired waters is also subject to EPA approval under Clean Water Act section 303(d). In previous year's operating budgets, this performance measure only counted 303(d) listed impaired waters. However, total polluted waters for all reporting years have changed to count both category 4 and 5 waters, since waters in both categories do not meet water quality standards, although category 4 waters are improving as recovery plans are implemented.

Analysis of results and challenges: The number of polluted waters has slowly declined since 2002. More waters have been restored than have become polluted during this period. Recovery can be a result of the actions of DEC, permit holders, landowners or other responsible parties affecting the waterbody as well as natural recovery over time.

The challenge in reducing the number of polluted waters is recognizing that pollution is a dynamic situation. Even as polluted waterbodies are being restored, new waterbodies may become polluted due to the growth in Alaska's population and the associated urban development. Pollution pressures are also being seen in rural areas that are heavily used for recreation, tourism and fishing. The key to making progress in reducing the number of polluted waters is to control pollution before it reaches the environment through wastewater discharge permits, best management practices and other controls for non-point source pollution (i.e. small sources that are not controlled by permits such as motor boats). DEC must also take action to restore those waters that become polluted despite DEC's best pollution prevention efforts.

A1: Strategy - Protect and restore polluted waterbodies to attain their designated uses.

Target #1: 25% of polluted waterbodies have active stewardship, protection and restoration activities each year.
Status #1: In FY 2008, 39% of polluted waterbodies had active stewardship, protection and restoration activities, a 9% increase from the previous year.



Methodology: Stewardship, protection and restoration projects may be conducted by grantees who have received funds through the Alaska's Clean Water Actions (ACWA) grant program, by contractors, by other State agencies, or by DEC personnel. The number of these projects is then divided by the number of total polluted waters as determined in the Integrated Water Quality Monitoring and Assessment Report to calculate the percentage of waters with active restoration projects.

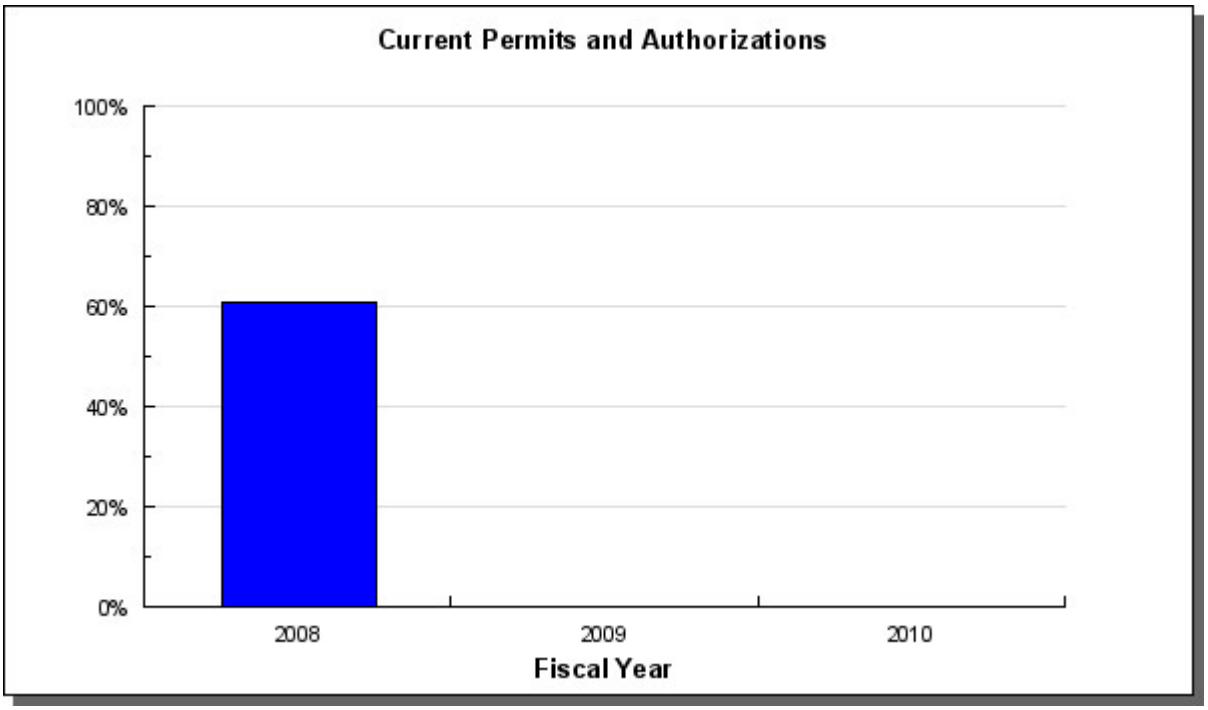
Analysis of results and challenges: The number of stewardship, protection and restoration projects has remained relatively stable since 2005: 18 projects were completed in FY 2005, 22 projects in FY 2006, 21 projects in FY 2007, and 24 projects in FY 2008. Over the same period, the number of polluted waterbodies has declined from 71 polluted waters in 2005 to 62 polluted waters in 2008. Therefore, the percentage of polluted waters for which the state has ongoing projects has risen slightly over this period.

Prioritizing actions on threatened and polluted waters is done through the Alaska Clean Water Act (ACWA) program, which is a cooperative effort of DEC, DF&G and DNR. The ACWA program provides a consolidated approach for a complete assessment of the health and status of any particular waterbody. Likewise, it provides a means to coordinate the use of State funds so that they can be directed to those projects that truly represent the State's highest priorities.

The challenges for the ACWA grant program include maintaining the participation level of multiple agencies using diverse and changing funding sources to achieve the joint mission of protecting Alaska's water resources for the designated uses of drinking, fishing, and recreation. The original funding source (EPA grant) has been declining, which is expected to continue over the next few years. While each new funding source has a relation to water protection, only the EPA grant has the flexibility to apply to all water protection and restoration projects. General funds are not used to fund the ACWA grants, but are used as match to federal funding for some restoration projects accomplished by contractors, other state agencies and DEC.

A2: Strategy - Issue discharge permits/authorizations.

Target #1: 100% of DEC-managed dischargers have current permits/authorizations.
Status #1: In FY 2008, 61% of the 209 dischargers managed by DEC had current permits/authorizations.



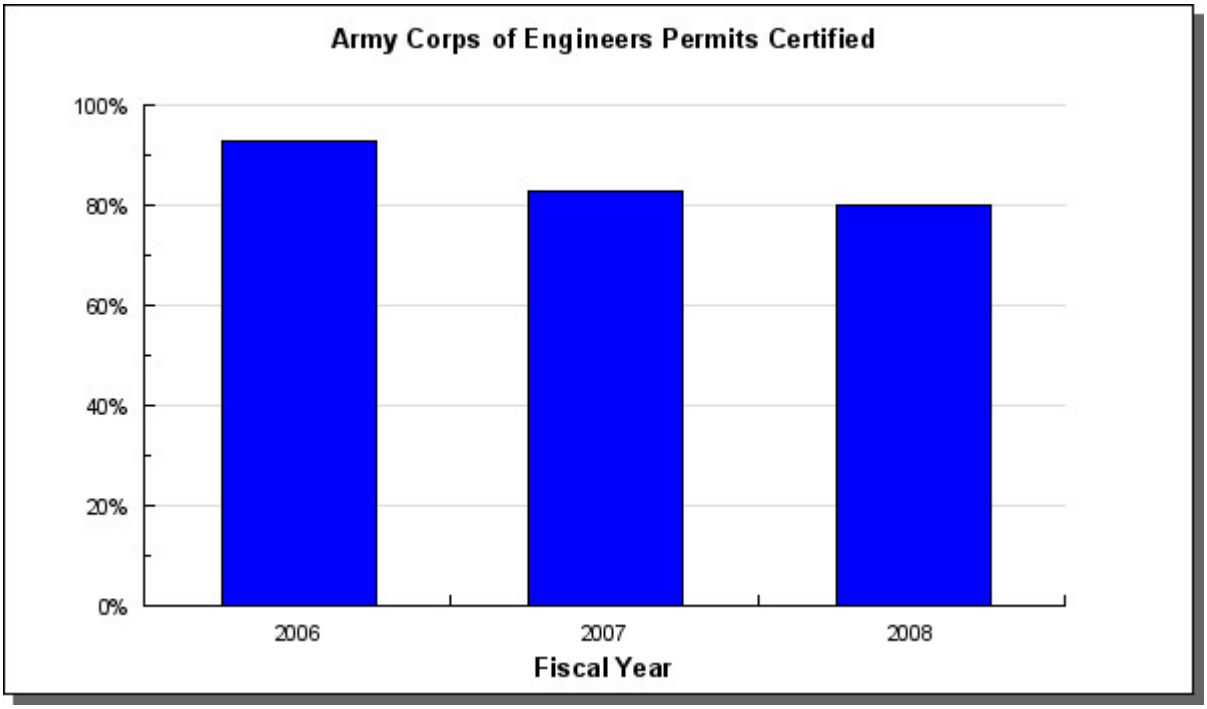
Methodology: Data source: DROPS Data Management System – Alaska managed permits only. For the purposes of this performance measure, administratively extended permits are not considered current. Note: The 2008 data includes state permits that should have been issued by EPA but were not.

Analysis of results and challenges: By November 2008 DEC anticipates that EPA will begin delegation of the surface water discharge permitting program to Alaska. In the first phase, DEC will assume domestic wastewater, seafood processing, fish hatcheries, and log-transfer facilities. DEC will also inherit a backlog of expired, extended and pending permits from EPA. The normal term for discharge permits is five years. Both EPA and DEC can administratively extend them although they may no longer be current with new regulations and water quality standards. The number of permits that DEC is responsible for will increase each year until 2011 when transfer of the program from EPA is complete.

DEC's goal is to increase the percentage of up-to-date permits over time as we assume and manage increasing numbers of permits from EPA. As DEC "inherits" expired permits from EPA over the next 3-year period, the percentage of permits that are current may decrease, while DEC works to update this backlog of old permits. We will also continue to update permits for those discharges that the State has always permitted and managed (i.e. subsurface discharges from leach systems to groundwater). This metric will reflect total effort to ensure that discharges to Alaska's surface and ground waters have permits with protective standards and do not pose risk to human health and aquatic life.

The challenge is conversion of a major program to DEC management from that of the federal government, with excellent data management, defensible permits, and public notice and participation to keep Alaskans informed about their waters. In FY 2008, 61% of the 209 dischargers managed by DEC had current permits/authorizations.

Target #2: 100% of Army Corps of Engineers dredge and fill ("404") permits are certified by DEC.
Status #2: In FY 2008, 80% of Army Corps of Engineers dredge and fill ("404") permits were certified.



Methodology: Information from DROPS data management system. The percent certified and percent waived sum to 100%.

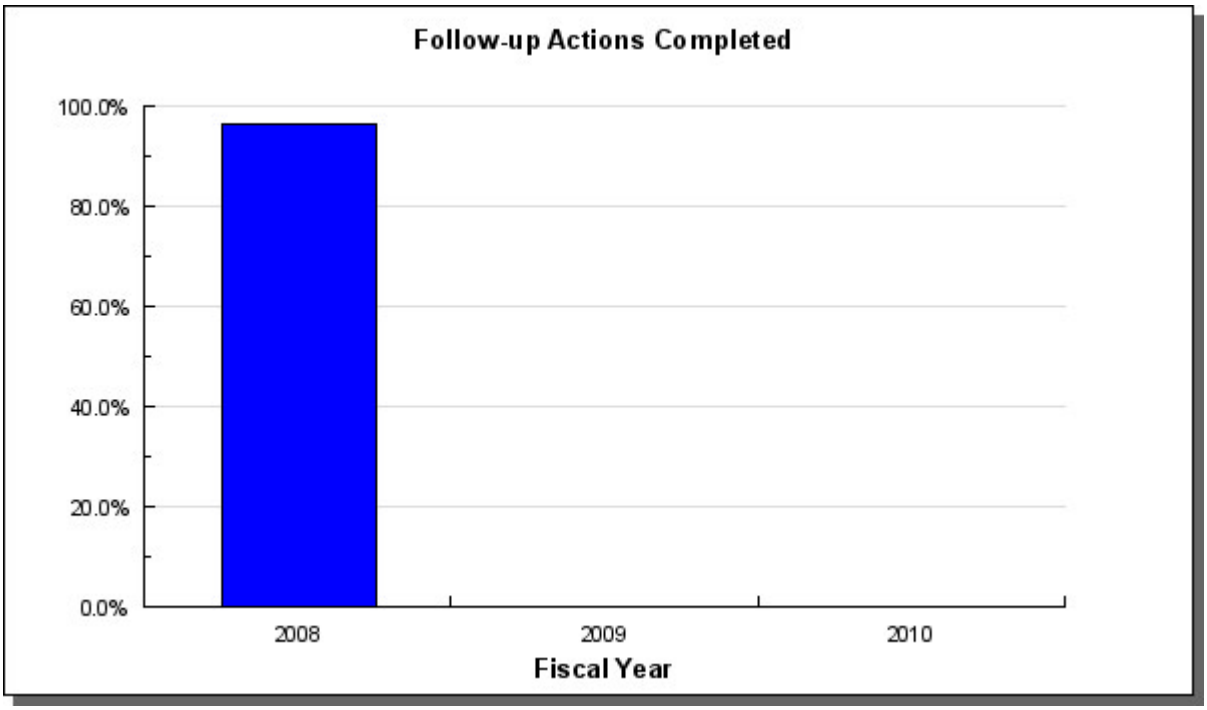
Analysis of results and challenges: DEC ensures that permits for wetland fill issued by the Army Corps of Engineers do not negatively impact water quality through provisions in the Clean Water Act. These construction projects can increase sediment loads in surface waters, introduce pollutants from operating machinery in surface waters, and degrade habitat. DEC has a strong history of reviewing these projects and cooperating with other agencies to protect Alaska's waters. Many large new development projects, like mines, require Army Corps of Engineer permits.

Many routine Army Corps projects are not reviewed since the agencies have agreed upon standard protective measures for them. Larger projects do require review, although DEC can waive review if impacts from them are considered minor. In FY 2008, DEC reviewed and authorized 91 projects and waived 25. A small percentage was not reviewed. While the staffing allocation for this program has remained constant, vacancies and new hires resulted in lower percentages reviewed in FY 2007 and FY 2008.

DEC's goal is to review and certify that all Army Corps permits meet state water quality provisions. The number of permits waived or not reviewed should decrease, but with existing staff (1.5 FTEs) the goal may not be attained each year if the Army Corps of Engineers receives a large number of permit applications.

A3: Strategy - Enforce compliance with permit/authorization conditions.

Target #1: 100% of inspected facilities have performed follow-up actions required by inspection reports.
Status #1: 96% of inspected water facilities performed follow-up actions required by inspection reports in FY 2008.



Methodology: DEC staff log inspection information into the DROPS Data Management System. Of inspected facilities where follow-up actions were required, actual occurrence of follow-up actions as reported by the DEC inspector is measured.

Analysis of results and challenges: Few facilities are 100% compliant with the terms and conditions of the discharge permit at the time of the inspection. Facility inspection reports document areas of permit non-compliance and require that the facility take action(s) to come into compliance without prescribing in detail what actions to take. The inspection report requires that the facility notify DEC when the facility actions have been taken.

In FY 2008, 54 inspected facilities required follow-up actions after an inspection was completed. Of those, 52 performed the follow-up actions. Unless there is a potential threat to human health or the environment as the result of non-compliance, DEC rarely schedules an immediate follow-up inspection to physically verify that that actions taken by the facility fully address the identified area(s) of non-compliance.

Key Component Challenges

The department is continuing to review its water quality programs for the purpose of establishing rational and seamless protective measures for all of Alaska's surface and groundwater. The review critically assesses the structure of DEC water programs and the use of permitting, field inspections, and best management practices to assure that pollution risks are appropriately and efficiently managed.

As an outgrowth of this review, the 2005 Legislature authorized DEC to seek and assume primacy for the federal wastewater discharge permitting program, National Pollutant Discharge Elimination System (NPDES). DEC submitted an NPDES application in May 2008, and EPA approved the state's program in late 2008. The state program is the Alaska Pollutant Discharge Elimination System (APDES). Permitting and compliance and enforcement authority to implement the APDES Program is transitioning to DEC over three years beginning with Phase I in late 2008 when EPA approved the state's program and concluding with Phase IV in late 2011. The department has continued to increase its expertise in federal wastewater discharge permitting (NPDES program) by drafting federal permits under workshare agreements with the EPA, as well as issue APDES permits that comport with federal laws. The Compliance and Enforcement Program will provide the requisite training to staff so that inspections will be

conducted in a consistent manner providing the public assurance that an appropriate enforcement response will follow documented noncompliance.

Periodic scientific review and adoption of new or revised water quality standards is necessary to ensure they remain protective of the many uses of Alaska Waters. In FY 2010, the department will continue research and propose revisions to state water quality standards to address priorities identified in the FY 2008 three-year workplan.

Most sources of water pollution are effectively regulated and controlled through permits. The largest remaining source of water pollution is from non-point sources that cannot be controlled through permits. Non-point sources are estimated to cause 40% of total pollution. In FY 2010 DEC will be developing and implementing new program activities for non-point source water protection and restoration which may include water pollution prevention and restoration standards, public recognition programs (e.g. Clean Harbor certification), and incentive programs for non-point source pollution reduction. This program development will involve coordination with stakeholders such as municipalities, public facilities, nongovernmental organizations (e.g. Green Star) and industry groups interested in pollution prevention.

Significant Changes in Results to be Delivered in FY2010

- In December of 2006, statutory changes resulting from a citizen's ballot initiative required DEC to develop and maintain a new permit program for Large Commercial Passenger Vessels ("cruise ships") to develop an on-board Ocean Ranger program, and to implement a vessel tracking system. During the 2008 season, a new wastewater discharge general permit for large cruise ships was instituted. As required by law, this new cruise ship permit is very stringent. Unlike a municipal wastewater discharge permit, no mixing zone is allowed. Cruise ships must meet Alaska Water Quality Standards at the end of pipe. DEC allowed the cruise ships to discharge under a compliance schedule for the following parameters: ammonia, copper, nickel, and zinc. Cruise ships were granted more lenient interim standards for those parameters during the 2008 and 2009 cruise ship seasons. Cruise ships will have to meet the long term limits by 2010.

- In October 2009, authority over permitted facilities in Phase II APDES Program will transition to DEC. Phase II consists of permits issued to federal facilities, the stormwater program, the pretreatment program, and miscellaneous permitted non-domestic discharges, such as utilities and ship and dry docks.

- The efforts to open new mines in the State have resulted in an increased workload for current DEC mining engineering staff. A number of large-scale mines are in the pre-permitting and actual permitting process; the permitting process is time intensive.

Major Component Accomplishments in 2008

NPDES PRIMACY

EPA approval for DEC to implement the Alaska Pollutant Discharge Elimination System program in lieu of EPA.

CRUISESHIP PROGRAM

During the 2007 cruise ship season, DEC conducted a limited pilot program approach and used a contractor to conduct on-board vessel observations using environmental professionals and U.S. Coast Guard licensed marine engineers. The contractor helped lay the groundwork for the full ocean ranger program. The 2007 season was the first season that the required vessel position tracking system was implemented. During the 2008 cruise ship season, DEC implemented a full Ocean Ranger program on large cruise ships. Ocean Rangers rode approximately 89% of voyages while a ship was in Alaska waters. The other vessel voyages were covered using in-port inspections. DEC issued a new general permit for cruise ship wastewater discharges as required by the 2006 citizen ballot initiative, and used a contractor to actively monitor and record vessel positions while in Alaska waters.

COMPLIANCE PROGRAM

Following a Division of Water re-organization that became effective in July 2007, a formal Compliance and Enforcement Program was created.

Staff completed 30 facility inspections. One of the primary functions of the inspections was to provide compliance assistance to permittees as most of the facilities inspected were operating under a NPDES permit.

Two formal enforcement actions (Notice of Violations) were issued for water quality violations associated with construction of a large mine near Nome.

WASTEWATER DISCHARGE PROGRAM

In FY 2008, the wastewater discharge program accomplished the following:

- Issued 5 Clean Water Act (CWA) section 401 certification for 100% of EPA-issued NPDES individual permits.
- Issued 39 authorizations to discharge under EPA general permits.
- Issued 4 new or reissued State discharge permits.
- Issued 43 authorizations to discharge under state-issued general permits.

The wastewater program continues to issue CWA certifications of Army Corps of Engineer wetland fill permits and oversees NPDES stormwater discharges in Alaska. In FY 2008 the program:

- Inspected 23 stormwater construction projects.
- Issued 191 CWA certifications of Army Corps of Engineers wetland fill permits.
- Waived 25 Army COE wetland fill permits (minor projects).
- Reviewed 86 stormwater pollution prevention plans.
- Reviewed 73 engineered stormwater plans.

DEC continues to review plans for disposal of wastewater to groundwater, including septic systems. Some of these systems have potential to impact surface waters or to degrade drinking water sources and wells if not properly designed and installed. In FY 2008 the program:

- Approved 641 subsurface disposal systems for construction and operation.
- Certified 146 installers to DEC standards and 101 of them attended DEC-provided training.
- Inspected 26 systems to verify that installers were compliant with DEC requirements.
- Received 75 complaints and 55 were inspected.

Other key accomplishments include:

- Hired one State of Minnesota staff to assist Compliance staff in developing a Compliance Committee protocol for resolving potentially complex enforcement cases.
- Joined with EPA compliance inspectors to conduct inspections within Alaska to increase compliance and enforcement capacity. These opportunities helped DEC staff to develop our inspection protocols.
- Developed forms, templates and other tools to implement the APDES program on assumption from EPA.
- Renewed efforts to comply with EPA and NOAA coastal non-point strategy by increasing outreach on stormwater control in 13 coastal communities and by developing new strategies to reduce marine pollution from groundwater leaching from septic systems.
- Developed and began a program to scan DEC approvals of septic systems and post them to a public access website to assist realty and land transactions and to reduce staff time on record inquiries.
- Assisted EPA in writing discharge permits (seafood and domestic wastewater) to build capacity among permitters.

WATER QUALITY STANDARDS, ASSESSMENT AND RESTORATION PROGRAM

- Developed guidance to implement the revised mixing zone regulations adopted in FY 2007.
- Set priorities and schedule for improving and updating Water Quality standards for the 2008-2010 3-year workplan.
- Completed the 2008 Integrated Water Quality Monitoring and Assessment Report of Alaska's Waters including the list of impaired waters under Clean Water Act section 303(d) and 8 newly restored waters attaining standards.
- Reviewed 24 detailed plans of operations for forestry activities on private lands.

- Completed 2 TMDLs (Total Maximum Daily Load plans; also known as waterbody recovery plans) for Pederson Hill Creek and Noyes Slough.
- Reported and made satisfactory progress on the Alaska's Non-point Source Water Pollution Control Strategy as certified by the U.S. Environmental Protection Agency to meet the federal Clean Water Act requirements.
- Implemented a shared resource agency (DEC, DFG & DNR) waterbody ranking and action assignment system to help target limited resources towards the State's highest waterbody priorities.
- Provided 20 clean water grants for a total of $534K to communities and other organizations to assist with priority water quality monitoring, watershed planning, and recovery of polluted waters. Recipients are providing 40% match of project costs.
- Provided grants to 3 communities to monitor water quality at beaches to protect against pathogen contamination as required under the federal Beach Act.
- Began field work for the Cook Inlet Lakes Survey under the Alaska Monitoring & Assessment Program (AKMAP) to assess regional water quality, sediment contamination and biological conditions.

Statutory and Regulatory Authority

AS 46.03; AS 46.04; AS 44.19; AS 46.40; AS 44.62; 8 AAC 80; 18 AAC 15; 18 AAC 50; 18 AAC 70; 18 AAC 72; 6 AAC 50; 11 AAC 95; 5 AAC 93; Federal Coastal Zone Management Act Reauthorization of 1990; Federal Clean Water Act; Federal Title XIV - Certain Alaskan Cruise Ship Operations - of H.R. 5666 (PL 106-554); Federal Water Pollution Control Act.

Contact Information

Contact: Lynn Kent, Director
Phone: (907) 269-6281
Fax: (907) 269-7508
E-mail: Lynn.Kent@alaska.gov

Water Quality
Component Financial Summary

All dollars shown in thousands

	FY2008 Actuals	FY2009 Management Plan	FY2010 Governor
Non-Formula Program:			
Component Expenditures:			
71000 Personal Services	6,607.5	7,293.7	7,542.2
72000 Travel	392.0	385.0	385.0
73000 Services	5,433.6	6,966.7	6,966.7
74000 Commodities	183.7	373.7	373.7
75000 Capital Outlay	0.1	16.8	16.8
77000 Grants, Benefits	572.4	641.4	641.4
78000 Miscellaneous	0.0	0.0	0.0
Expenditure Totals	**13,189.3**	**15,677.3**	**15,925.8**
Funding Sources:			
1002 Federal Receipts	3,456.9	5,009.7	5,040.2
1003 General Fund Match	434.0	443.9	448.4
1004 General Fund Receipts	4,489.4	4,386.0	4,437.7
1005 General Fund/Program Receipts	795.7	834.6	842.1
1007 Inter-Agency Receipts	326.7	238.7	386.7
1061 Capital Improvement Project Receipts	181.5	0.0	0.0
1108 Statutory Designated Program Receipts	0.0	77.4	77.4
1166 Commercial Passenger Vessel Environmental Compliance Fund	3,505.1	687.0	690.9
1205 Berth Fees for the Ocean Ranger Program	0.0	4,000.0	4,002.4
Funding Totals	**13,189.3**	**15,677.3**	**15,925.8**

Estimated Revenue Collections

Description	Master Revenue Account	FY2008 Actuals	FY2009 Management Plan	FY2010 Governor
Unrestricted Revenues				
None.		0.0	0.0	0.0
Unrestricted Total		**0.0**	**0.0**	**0.0**
Restricted Revenues				
Federal Receipts	51010	3,456.9	5,009.7	5,040.2
Interagency Receipts	51015	326.7	238.7	386.7
General Fund Program Receipts	51060	795.7	834.6	842.1
Statutory Designated Program Receipts	51063	0.0	77.4	77.4
Capital Improvement Project Receipts	51200	181.5	0.0	0.0

Estimated Revenue Collections

Description	Master Revenue Account	FY2008 Actuals	FY2009 Management Plan	FY2010 Governor
Comm Passenger Vessel Environmental Fund	51436	3,505.1	687.0	690.9
Berth Fees for Ocean Ranger Program	51492	0.0	4,000.0	4,002.4
Restricted Total		**8,265.9**	**10,847.4**	**11,039.7**
Total Estimated Revenues		**8,265.9**	**10,847.4**	**11,039.7**

Summary of Component Budget Changes
From FY2009 Management Plan to FY2010 Governor

All dollars shown in thousands

	General Funds	Federal Funds	Other Funds	Total Funds
FY2009 Management Plan	**5,664.5**	**5,009.7**	**5,003.1**	**15,677.3**
Adjustments which will continue current level of service:				
-FY2010 Wage and Health Insurance Increases for Bargaining Units with Existing Agreements	63.7	30.5	9.3	103.5
Proposed budget increases:				
-Increased Mining Activity	0.0	0.0	145.0	145.0
FY2010 Governor	**5,728.2**	**5,040.2**	**5,157.4**	**15,925.8**

Water Quality
Personal Services Information

Authorized Positions			Personal Services Costs	
	FY2009 Management Plan	FY2010 Governor		
Full-time	83	84	Annual Salaries	5,229,650
Part-time	0	0	COLA	206,127
Nonpermanent	1	1	Premium Pay	0
			Annual Benefits	2,656,604
			Less 6.80% Vacancy Factor	(550,181)
			Lump Sum Premium Pay	0
Totals	**84**	**85**	**Total Personal Services**	**7,542,200**

Position Classification Summary

Job Class Title	Anchorage	Fairbanks	Juneau	Others	Total
Accountant IV	0	0	1	0	1
Accounting Tech III	0	0	1	0	1
Admin Operations Mgr I	0	0	1	0	1
Administrative Assistant I	1	0	0	0	1
Administrative Clerk II	1	0	1	0	2
Administrative Clerk III	0	1	0	1	2
Administrative Officer I	1	0	0	0	1
Analyst/Programmer IV	0	0	2	0	2
Analyst/Programmer V	0	0	1	0	1
Chemist IV	0	0	1	0	1
Data Processing Mgr I	0	0	1	0	1
Deputy Director	1	0	0	0	1
Env Eng Associate I	1	2	2	2	7
Env Eng Associate II	1	1	0	0	2
Environ Engineer I	1	0	0	0	1
Environ Engineer II	3	1	1	0	5
Environ Program Manager I	2	1	1	0	4
Environ Program Manager II	1	1	2	0	4
Environ Program Manager III	2	0	0	0	2
Environ Program Spec I	1	1	0	0	2
Environ Program Spec II	2	2	3	0	7
Environ Program Spec III	11	2	9	1	23
Environ Program Spec IV	1	0	5	0	6
Environ Program Technician	0	2	0	2	4
Grants Administrator III	1	0	0	0	1
Project Coord	1	0	0	0	1
Tech Eng II / Architect II	0	0	0	1	1
Totals	**32**	**14**	**32**	**7**	**85**